MT55&62 Series

User manual

Directory Index

⚠ Before using this product, please read and keep this manual for future reference.

1.Safety Criterion

Personal protection

Warning: Be sure to understand and follow all the safety guidelines in the manual, safety instructions, warnings and precautions.

Warning: Note the suspended load.

Warning: Be careful when the load is heavy.

Warning: wear a helmet.

Installation Technician

The installation can be performed only by a KMT qualified or authorized IT training qualified technical personnel. This remarkable .Display screen for high security requirements, qualified installer must ensure that the system of site, structure, assembly, even Access, use, demolition unloaded, transportation and other aspects of security.

Caution

Only when you are completely familiar with all applicable safety checks after the events and installation instructions can begin Perform the installation. Otherwise, it will increase the risk and the risk of personal injury to the user. Assembly parts only Cheung technology suitable for light assembly production of LED display. Do not modify or reproduce any of the components. Light Cheung technology using special materials and manufacturing processes to achieve the required Parts strength. To get help with custom applications, see the light Cheung technology consulting. Be sure to follow the light .Cheung technology to provide installation instructions. If you have any questions about the security of an application, please Contact Andrew Light Technology. For incorrect, inappropriate or unsafe is not responsible for the behavior of the display assembly, Andrew Light Technology is not responsible. Product Maintenance.

Product Maintenance

Construction and assembly of components should be kept dry, clean, lubricate (if recommended that you do), or to other operators Design features of the applicable parts fit the way for maintenance. Light Cheung use technology products must meet production Product design features; must regularly carry out routine checks on the product to see if it is safe and reliable, with or without grinding Damage, deformation, corrosion and other conditions that may affect the parts of the load handling capabilities.

Security

Micro recommends regular inspection of all installed devices; more important device for installation should be increase the frequency of inspections. If damaged parts may reduce the load handling capability, you must immediately unloaded under Or repair damaged parts to be replaced. To repair parts, please contact Andrew Light Technology; any The case, not by any other person or entity Cheung repair light LED display technology produces zero Components.

Warning: Read the above text carefully and follow the installation instructions strictly!

1.Safety criterion

1.2 Important safety instructions-Instructions:

- **Read these instructions.**
- **Keep these instructions.**
- **Heed all warnings.**
- **Follow all instructions.**
- Only use parts/accessories specified by the manufacturer.
- Do not let any part of the LED display come into contact with any abrasive substances (such as silicon carbide, iron oxide, etc.).
- Do not let any part of the LED display come into contact with corrosive substances (such as nitric acid, sulfuric acid, sodium hydroxide, etc.).
- Use only inert, non-abrasive, non-corrosive materials without leaving traces or chemicals for cleaning. As If you have any questions about the cleaning process, please contact the manufacturer for further advice.
- Do not block the vents, follow the manufacturer's instructions for installation.
- Do not use near heat sources such as radiators, heaters, stoves, or other devices that produce heat (including Install this device amplifier) nearby.
- The display should not be used with equipment that produces atmospheric pollutant environments (such as those from foggers (cracked oil)) or similar equipment, as the LED lamps that produce these pollutants optically deposit a thin layer of grease, This reduces display performance.
- The LED display should not be exposed to any material laser, ultrasonic vibration, or conditions or environments that impede the normal ventilation and cooling of the display panel, otherwise any part of the display will heat up and not work properly.
- LED displays should not be exposed to environments where steam may condense or collect on any components.
- Without 3c, CE and UL/ETL certification, the LED display should not be used near electromagnetic interference-rich equipment. (such as communication base stations, computer rooms, etc.).
- Do not neglect the grounding of the pole or plug, and protect the safety of the socket. If a socket is provided, in the event of a loss of mating, appropriate measures must be taken immediately to replace the damaged part.
- Only use the specified cable connection components for display, and also, be careful when connecting the signal only in accordance with the installation instruction manual.
- Do not walk on power and data lines, and avoid pinching air plugs, sockets and power/data cables from the device. Damaged power or data cables should be replaced immediately.
- In the event of a lightning strike, disconnect the power to the connected equipment or provide other suitable lightning protection. If the device has not been used for a long time, please unplug the power cord.
- Have repairs performed by qualified technicians. When the equipment is damaged due to various reasons (such as the power cord or plug is damaged, cannot work normally or has been scrapped), please contact Gloshine maintenance personnel for maintenance.
- The equipment incorporates a system or peripheral equipment that is only specified by the manufacturer or matched to the equipment used in the lift. When moving or transporting the equipment, take care to avoid damage to the equipment due to tipping.

1.Safety criterion

1.2 Important safety instructions-Instructions:

• Do not place the display or module on top of the LED light. This is to prevent damage to the LED indicators and LED mask. The maximum load allowed on the mask is 300 g/LED.

• Do not put pressure on the LED light. Damage due to mechanical stress on the LED light is not covered by the warranty.

• Do not hang any other equipment on the cabinet and the power cord connected to the cabinet.

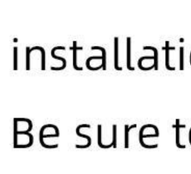
• If the LED display fails, appropriate measures must be taken immediately (return the device?) to not allow the failed device to continue working.

• In addition to the Gloshine air box and packing box, other packaging should not be used during transportation. Even if the Gloshine Technology package is used for transportation, it cannot be guaranteed that the box will not be damaged due to excessive force. Packaging materials can be ordered from our company. Damage to the module due to incorrect packaging voids all warranty claims.

• Only use the method described in the installation manual to disassemble components such as LED modules.

1.Safety criterion

1.3 Important Warning



High voltage leakage may occur:

Combined with the installed equipment in more than one unit cabinet, it will cause leakage. In order to avoid the risk of shock caused by free large leakage currents, the equipment must be properly grounded and plugged.

Power cable:

The system comes with a power cord with special safety properties. If the power cord is damaged, it should be replaced with a new one. The user cannot repair them, please do not repair the power cord without authorization.

Power supply system:

A TN-S distribution system (separate from the neutral and ground distribution system) is recommended to avoid large ground current loops between conductors due to neutral voltage differences. Power switches, circuit breakers, overvoltage protection, and ground-fault current interrupters should be properly rated to protect the entire electrical installation.

Be sure to install in accordance with local electrical installation codes. If in Europe, special attention should be paid to en60364, which is the standard for electrical installations in buildings. If in Germany, the VDE0100 specification should be followed. If in the United States special attention should be paid to the National Electrical Code ANSI/NFPA 70.

Circuit breaker equipment:

When you do not have access to each cabinet power socket, the power socket should be installed near the equipment, or the accessible public circuit breaker device should be installed on the fixed line. Equipment must be grounded.

To prevent electric shock, the equipment should be properly grounded. Do not ignore the role of the grounding plug, otherwise there is a danger of electric shock.

LED electrostatic discharge:

Slight ESD (Electrostatic Discharge) will damage the LED display components. To prevent damage to the LED components, please wear anti-static gloves during operation (installation, disassembly, uninstallation, etc.), and do not touch or disconnect the device during operation.

Flammable Materials:

Flammable items should be kept away from the device. A large amount of energy in the operation of the product will be converted into heat energy. The installation should consider the ventilation of the product to ensure the safe operation of the equipment. Adequate ventilation must to be provided.

Warning: Read the above text carefully and strictly follow the installation instructions!

1.Safety criterion

1.3 Important Warning

Fire Hazard:

In order to avoid fire caused by overloading of power supply cables, when the rated voltage is 110VAC, up to 5 cabinets can be connected in parallel, and when the voltage is 200~240V, up to 10 cabinets can be connected in parallel. Each power cable can carry up to 10pcs of cabinets and should be rated for 16A/250VAC (15A/250VAC in the US and Canada) circuit breaker or fuse protection. Please understand that one cabinet requires 200~ 240 VAC, 50 ~ 60Hz, 1.4 amps 230 VAC.

Prohibit open:

To reduce the risk of electric shock, do not remove the rear cover. There are no user-dimensional internal.

Package:

All warranty claims are void if improper packaging is used, which can easily lead to damage to electronic components.

Warning: Read the above text carefully and strictly follow the installation instructions!

2.Specification and Structure

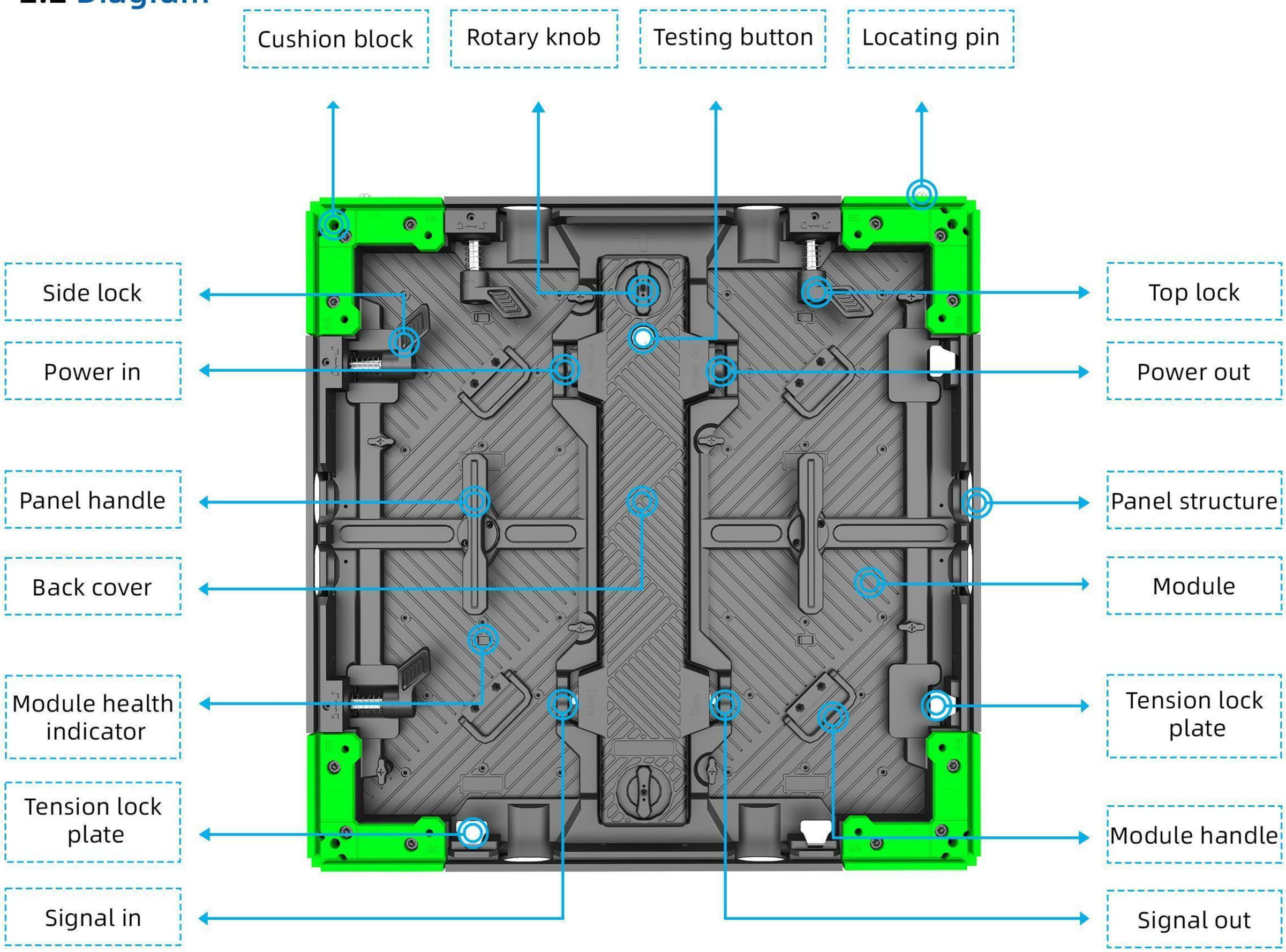
2.1 MT55&62 series detailed specifications

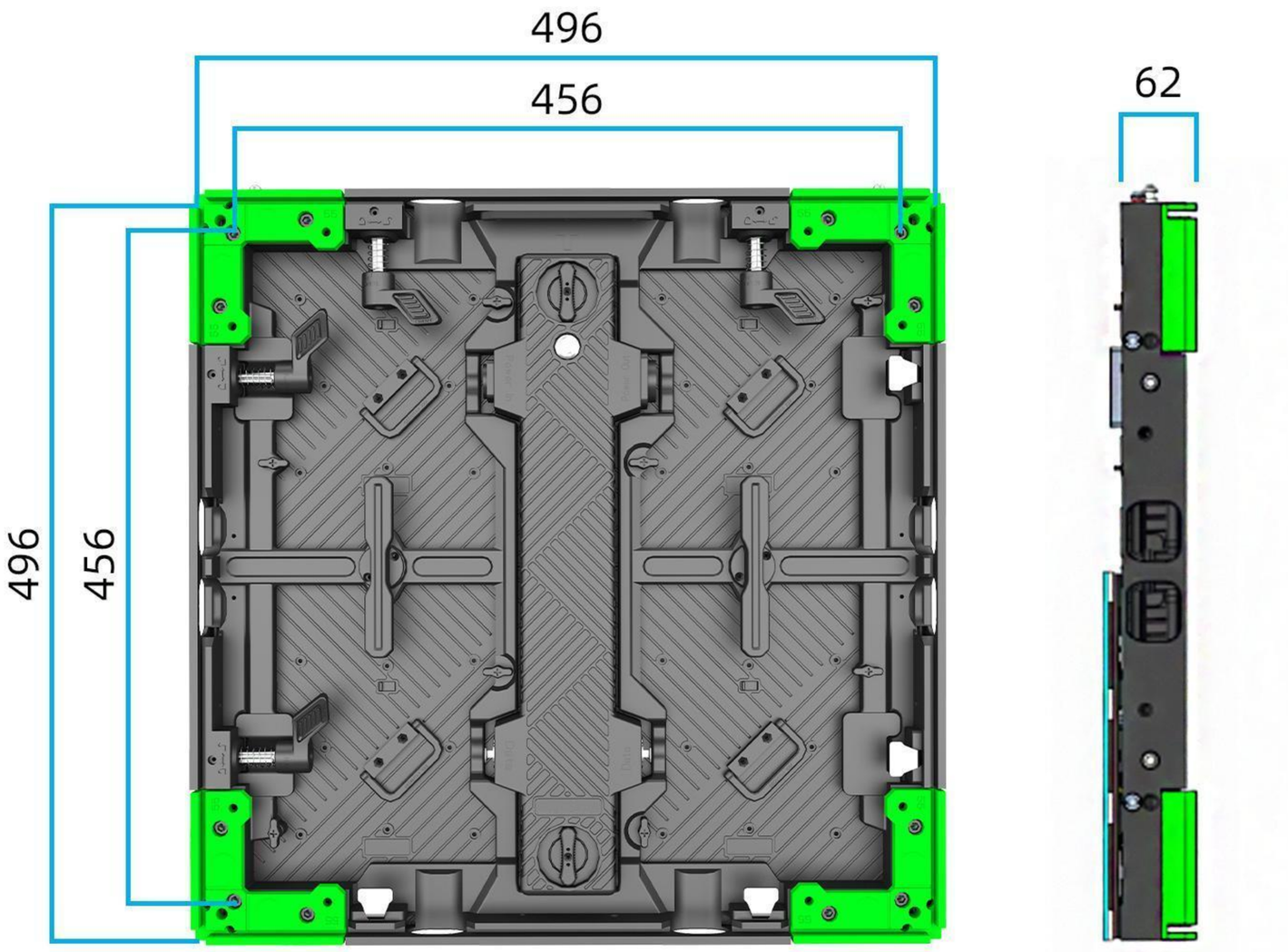
INDOOR

Model No.	MT55/62 1.2	MT55/62 1.5	MT55/62 1.9	MT55/62 1.9	MT55/62 2.3
Plxel Pitch	1.29mm	1.55mm	1.93mm	1.93mm	2.38mm
LED Type	SMD1010	SMD1212	SMD1515	Mini Four in one	SMD1515
COB/HOB	GOB/HOB	GOB/HOB	GOB/HOB	/	/
Pixel Density	589,824pixel/m^2	409,600pixel/m^2	262,144pixel/m^2	262,144pixel/m^2	173,056pixel/m^2
Brightness	500-800nits	700-1000nits	700-1000nits	700-1000nits	800-1200nits
Scan Ranel	1/32	1/16or1/32or1/40	1/32	1/32	1/26
Panel Resolution	384*384pixel	320*320pixel	256*256pixel	256*256pixel	208*208pixel
Panel Dimension(W*H*D)	496*496*55mm/19.5''*2.1''				
Color Temperature	6500-9500K				
Panel Weight	8.8kg±10%/19.84lb±10%				
Cabinet Material	Die-Casting Cabinet				
Max Power	≤580w/m^2				
Ave Power	≤290w/m^2				
Viewing Angle	H:160° V:140°				
Refresh Rate	7680/3840Hz				
Gray Scale	14-16bit				
Working Voltage	AC100-240V~50-60Hz				
Working Voltage	AC200-240V~50-60Hz				
IP Rating	IP30				
Curve	/				
Max Stacking/Hanging	8m				
Senviceability	Front/Rear				
Lifetime	50000h				
Operating Temp/Humidity	-20°C-+45°C;10%-60%RH				
Storage Temp/Humidity	-40°C-+60°C;10%-60%RH				
Processing Platform	Novastar/Colorlight/Magnimage/Brompton				
Certifications	CE-EMC, CE-LVD, FCC, ETL				

2.Specifications and Construction

2.2 Diagram





3.Basic requirements

3.1 Installation requirements

Note: Before installation, please confirm the usage environment requirements and applicable scope of the display screen you choose.

You need to consider the following points, and exact calculations must be made for a single system;

•Load: Make sure that the mounting beam on which the fixed display is installed can bear the load of 5 times the weight of the entire display. And the overall height of the display cannot exceed 10 meters.

•Environment: temperature, ventilation and humidity, etc., dust, acid fog and strong stress conditions such as typhoons and earthquakes that may be endured by the installation height due to indoor and outdoor weather changes.

• Space: For best results, make sure the display has enough space and meets minimum viewing distance requirements.

• Regulations: Local regulations for this type of installation.

Basic requirements

•In order to ensure your safety, the installation and maintenance of this product must be operated by professionals, and non-professionals should not open it for maintenance.

• Before installing and maintaining the product, cut off the power supply, check whether the insulation of the power supply line of the product is in good condition, and ensure that the local voltage is consistent with the rated voltage of the display screen to avoid damage caused by overheating of the product, and ensure that the product is grounded.

• To ensure the reliability of the connection between the product and the installation, the safety of the support and the installer must be ensured, and the product can be installed only after the connection is reliable to prevent the center of gravity from falling down.

• The sending system does not support hot-plugging. Be sure to unplug the power cord before plugging in the connections between various devices.

• During the installation process, workers should take safety measures (wear safety helmets, safety belts and other protective products).

• When disassembling and assembling control system boards and other equipment, be careful to prevent static electricity (wear anti-static gloves, etc.).

Precautions

• When moving the box, care should be taken to handle it with care, and cover the ground with a protective layer (paper or carpet) to prevent bumps, scratches, and falls.

•The four corners of the box are prone to mechanical damage. When loading and unloading the display, be sure to avoid accidental collisions at the four corners of the box.

• Install the fixed display in sequence, it is recommended to use a laser level to help keep it horizontal, vertical, etc.

• The box body and the installation beam are locked with the device that comes with the box body, and the corresponding holes are reinforced with other reinforcement accessories.

•Before installing the box, remember to check the flatness of the installation beams and ensure that there is no gap between the beams.

• The box body should be neat during the assembly process. The gap between the box body and the box body after assembling and fixing should be between 0.2 and 0.4 mm. If it is not flat, please adjust it.

• After the hanging beam and the box are fixed, it is necessary to strengthen the fixing with connecting pieces at the corresponding holes of the hanging beam and the box.

• It is recommended to install the cabinets layer by layer, and check the flatness and gaps after each layer of cabinets is fixed, and adjust them in time.

3.Basic requirements

3.2 Electrical Requirements

Power supply

One control box requires 200~240 VAC, and the power split cable is used to connect the power supply from one cabinet to another, but up to 15 cabinets can be connected in parallel, so a power cable is required for 15 cabinets . When the power supply voltage is AC 110V, up to 8 cabinets can be connected, and one power cable needs to be provided for 8 cabinets. It should be protected with a circuit breaker or fuse rated at 16 A/250 VAC (15 A/250 VAC in the US and Canada.

Electrical requirements

Input: AC100-240V 47-63Hz 16A 2.5mm²

Output: AC100-240V 47-63Hz 15.2A 2.5mm²

The minimum current of a single cabinet: 0.8A（AC220V） 1.6A（AC110V)

TN-S distribution systems (distribution systems with separate neutral and ground conductors) are recommended to avoid large ground current loops due to voltage differences in the neutral conductor. The entire electrical installation should be protected with appropriately rated power disconnect switches, circuit breakers, overvoltage protectors and ground fault current interrupters. Installation should be performed in accordance with local electrical installation codes. If in Europe, special attention should be paid to EN60364, which is the standard for electrical installations in buildings. If in Germany, the VDE0100 specification should be followed. If in the United States, special attention should be paid to the National Electrical Code (National Electrical Code) ANSI/NFPA70.

Detection of screen power supply system (power distribution cabinet, detection of switching power supply requires personnel with electrical knowledge to operate)

A. Check whether the live wire L, the neutral wire N, and the ground wire FG are short-circuited.

B. Check whether the zero line N and the ground line FG are short-circuited, and the resistance value should be ∞.

C. Check whether the +4.2V power supply of the receiving board and GND (30~50Ω) and the ground wire FG, live wire L, and neutral wire N are short-circuited, and the resistance value should be ∞.

D. Detect whether the receiving board GND is short-circuited with the ground wire FG, the live wire L, and the neutral wire N, and the resistance value should be ∞.

E. Check whether the output +4.2V and GND of each power supply are short-circuited, and the resistance value should be 30~50Ω.

3.Basic requirements

3.3 System Requirements for Control Software

Before the start It is assumed that you are already familiar with the Windows operating system used in the field. The CD-ROM included in the package contains a Windows-based installer. You can install software from this CD-ROM.

System Requirements Minimum specs:

Hardware

- PC Pentium IV or equivalent, 2GHz
- 512 Mb RAM
- Free hard disk space: 300 Mb
- XGA resolution (1024 x 768)
- Serial communication port
- Ethernet connection
- DVI connection

Software

- Windows XP Home or Windows XP Professional Recommended Specifications:

Hardware

- CPU Intel Core 2 Quad Q8200 or equivalent, 2.4GHz
- 1 Gb RAM
- 300 Mb of free hard disk space.
- SXGA resolution (1280 x 1024) with 32Mb video memory
- Serial communication port
- Ethernet connection
- DVI connection

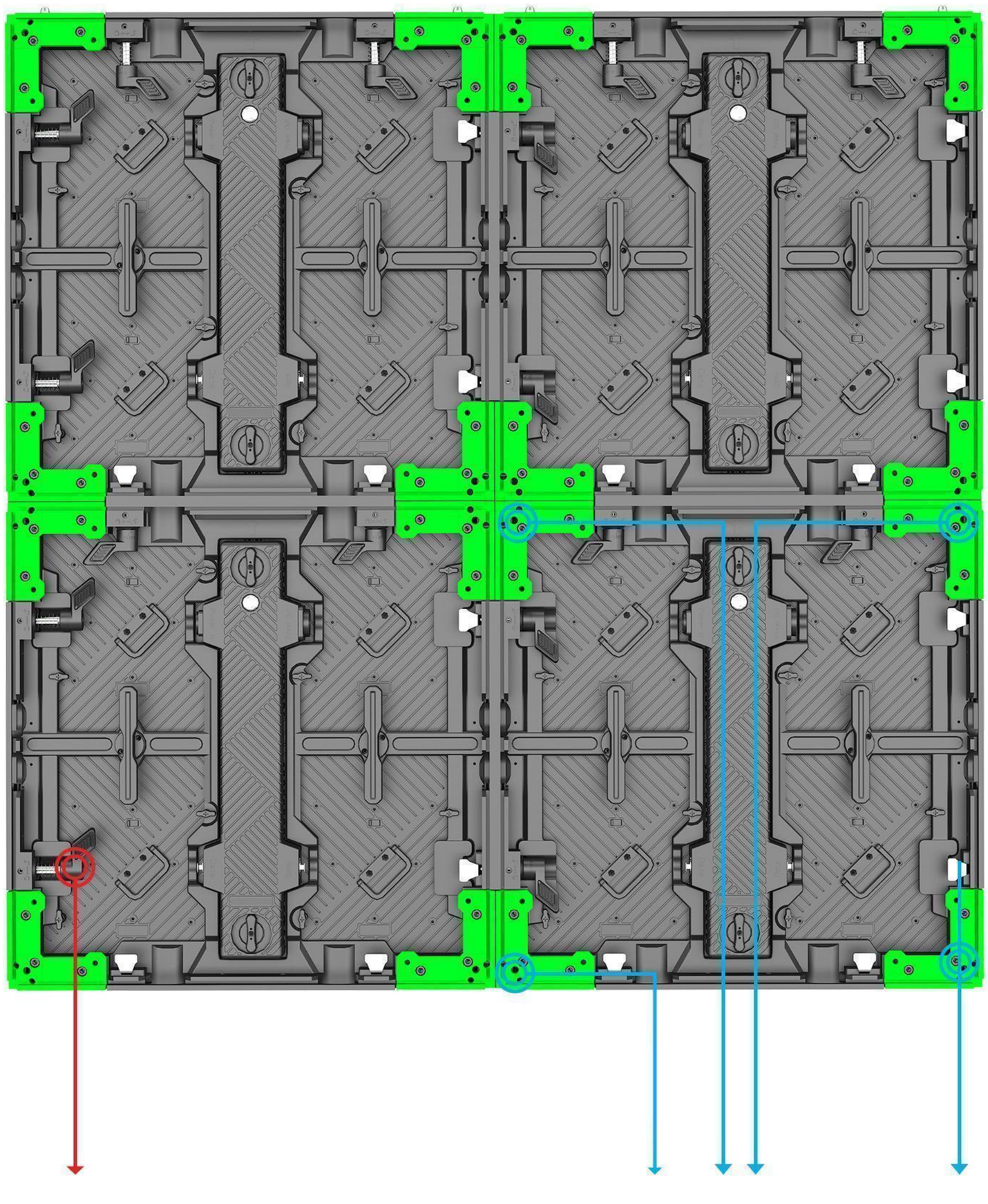
Software

- Windows XP Professional or Windows Vista.

4.Installation

4.1 Basic notes:

1. The two panels in the horizontal direction are fixedly connected by side locks.
2. The two panels in the vertical direction are positioned by upper and lower locating pins, and secured by the hanging locks which rotates to lock.
3. The corners of the panel have mounting holes for connecting plates, and the connecting plates can be locked and installed at appropriate positions.



Side Lock:

To lock: Push the lock forward until you hear a click, then press down to lock it.

To unlock: Rotate the handle back 180 degrees and press the lock plate to release it.

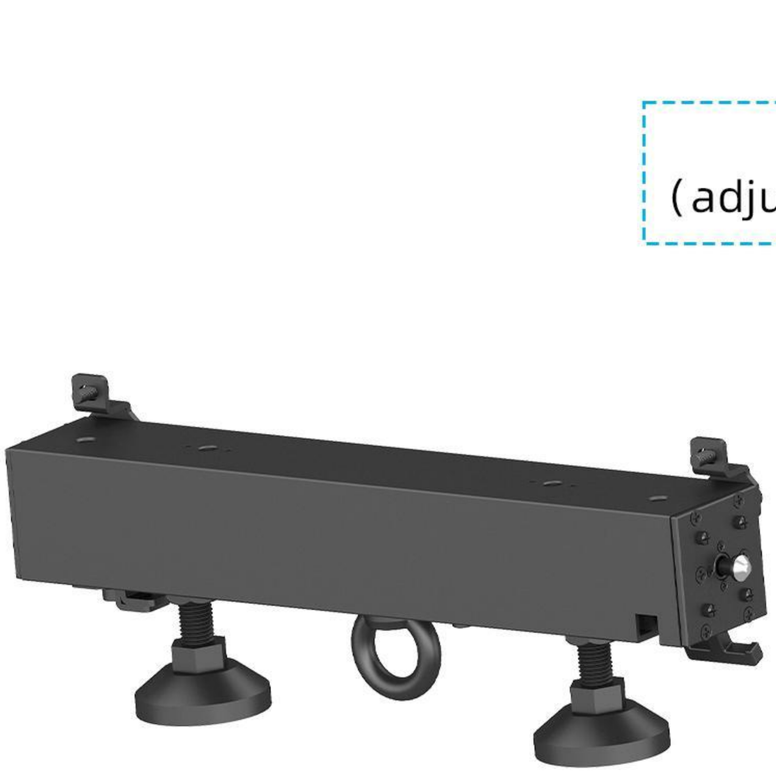
Four cushion blocks installation:

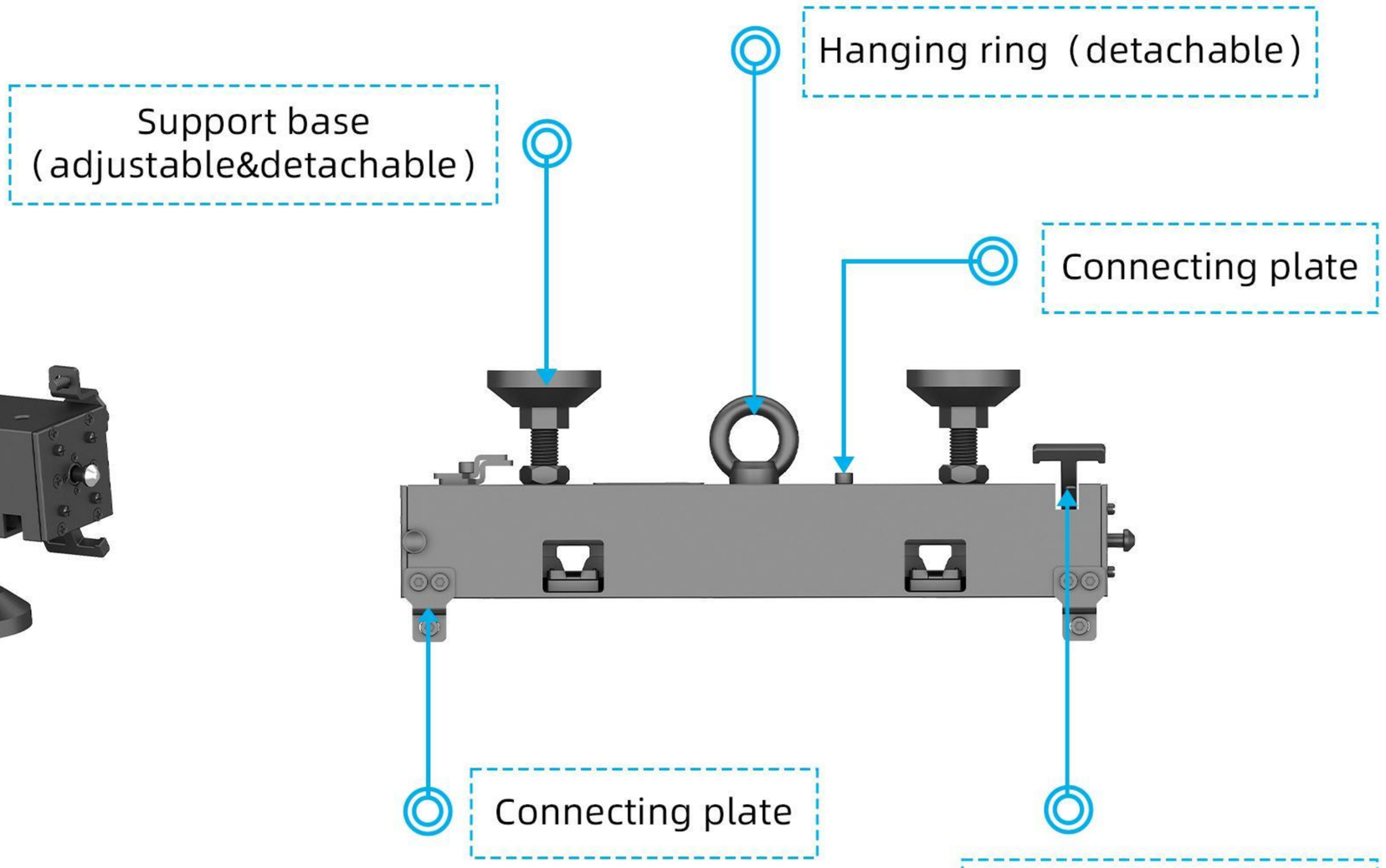
The four cushion blocks can be interchanged for use, and either 55mm or 62mm panel size can be achieved. Each cushion block is fixed with three screws.

4.Installation

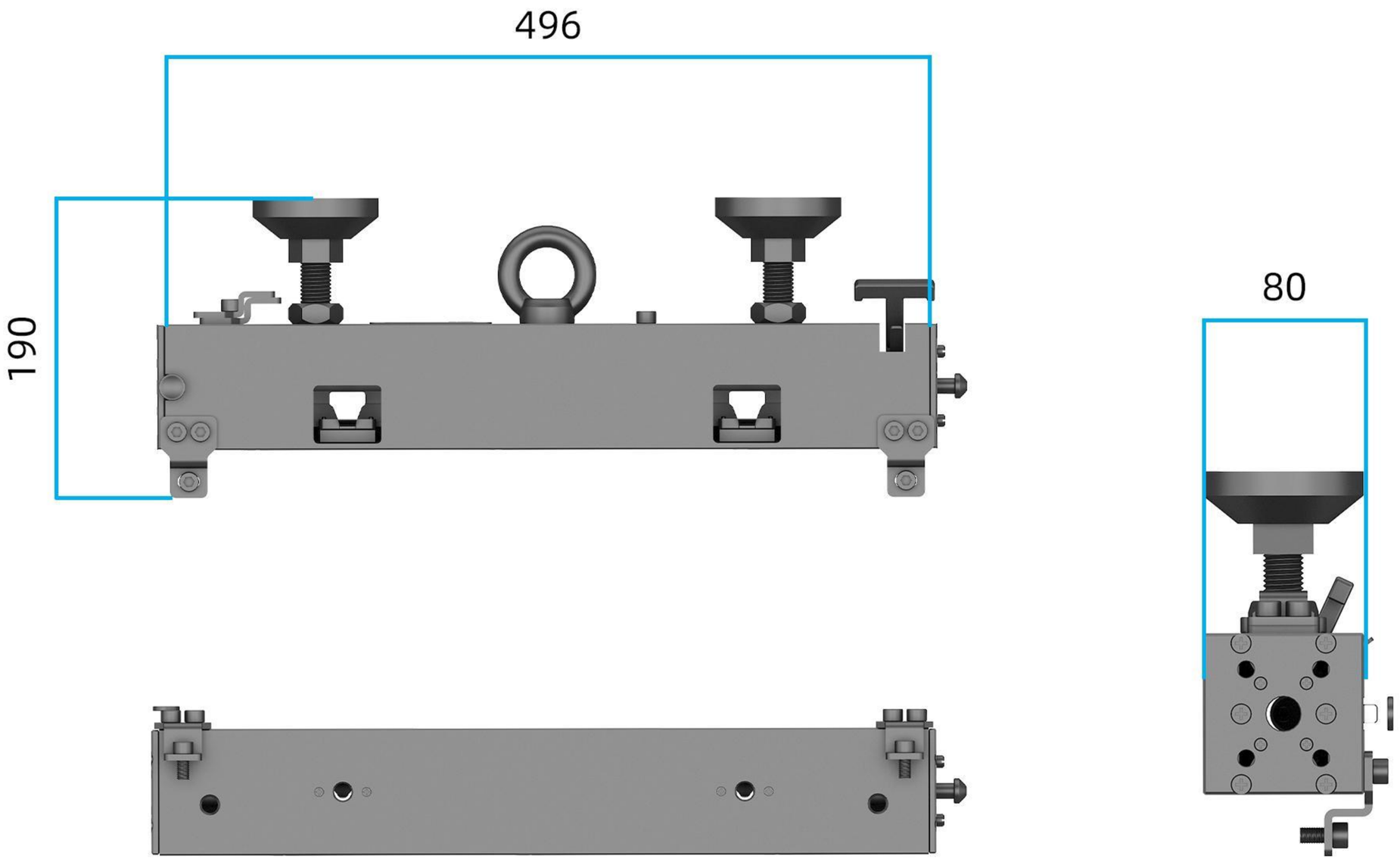
4.2 Diagram

Fly bars





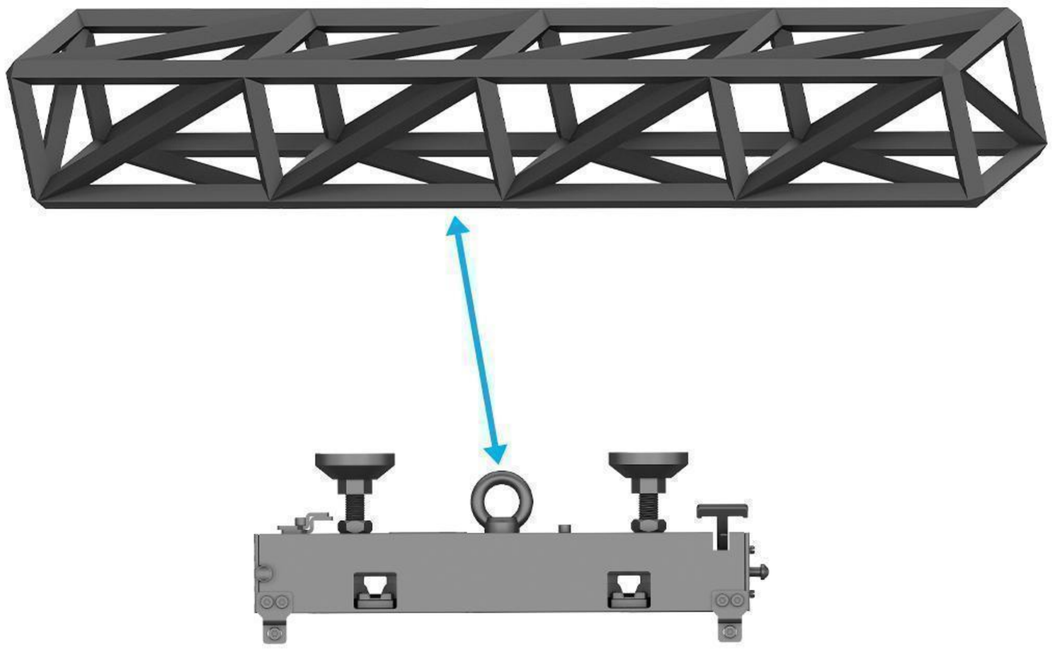
Dimension of fly bars



4.Installation

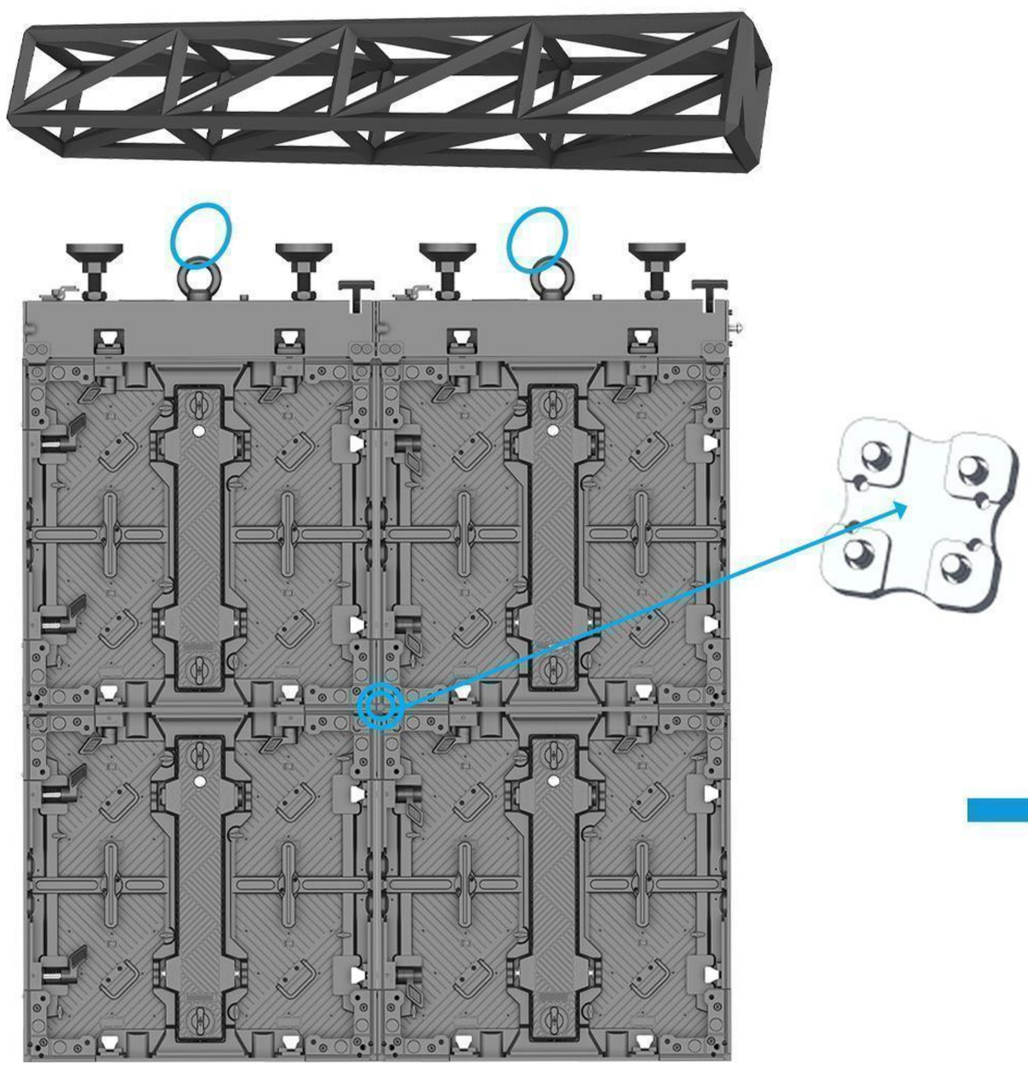
4.3 Installation of fly bars

1.Fix the fly bars to the truss via hanging rings one by one.

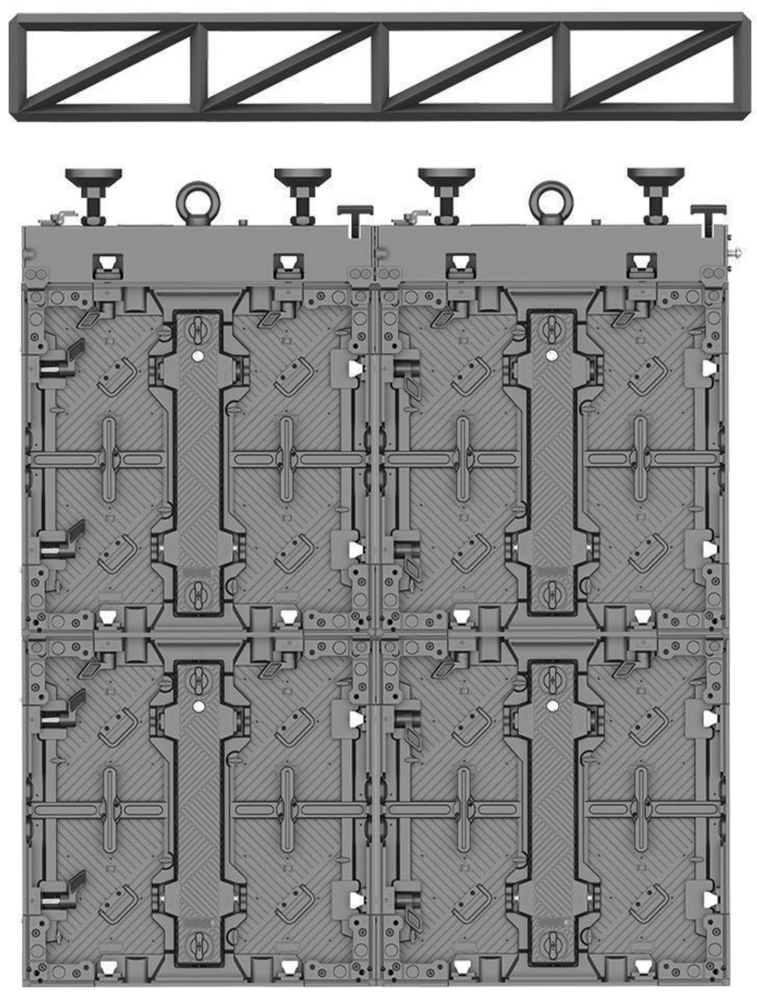


2.Connect the cabinet to the fly bars by top locks and connecting plates one by one.

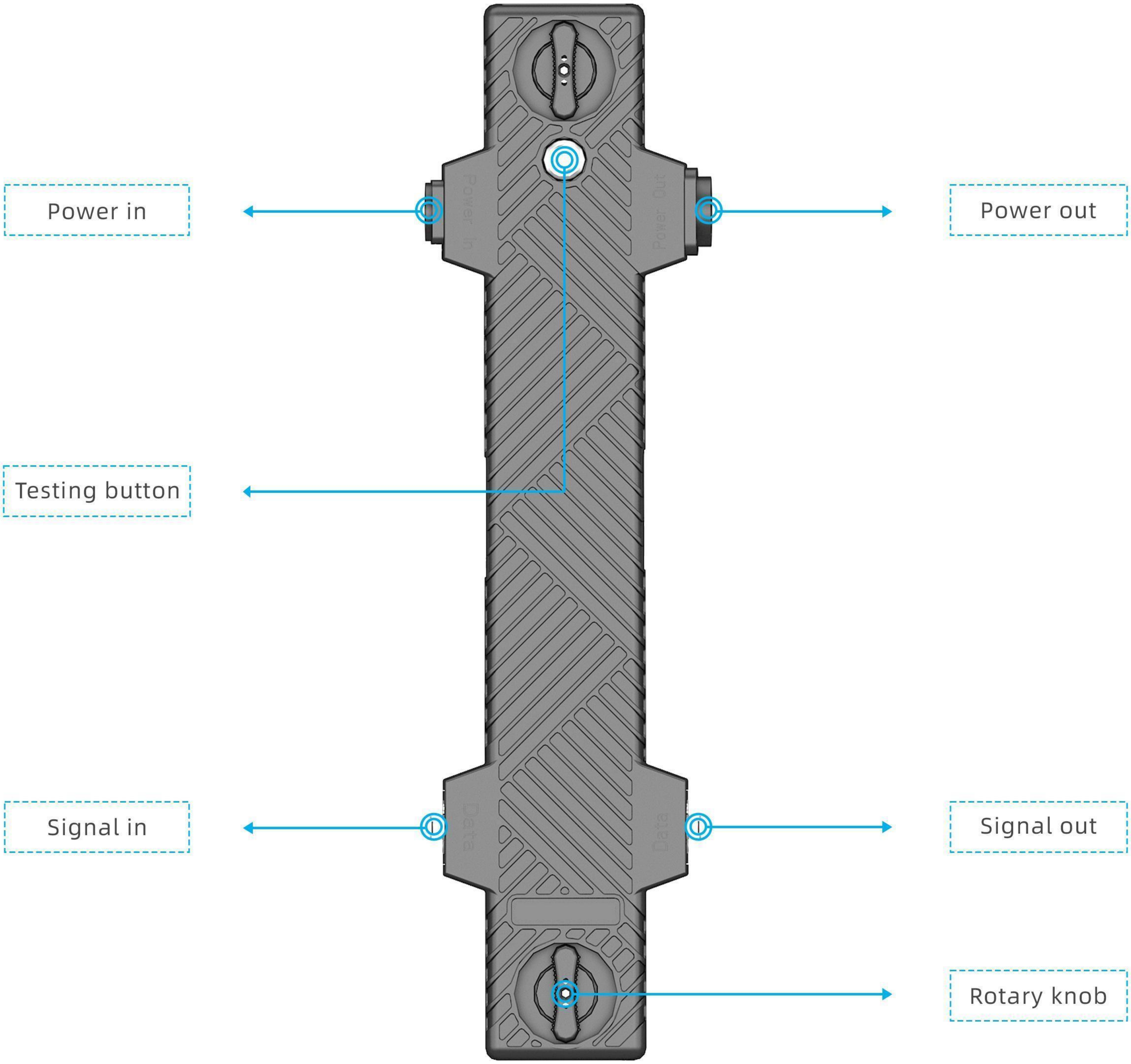
3.Check the first row of panels, adjust to ensure they’re even and flat and little gaps, then fix the connecting plates of fly bars.



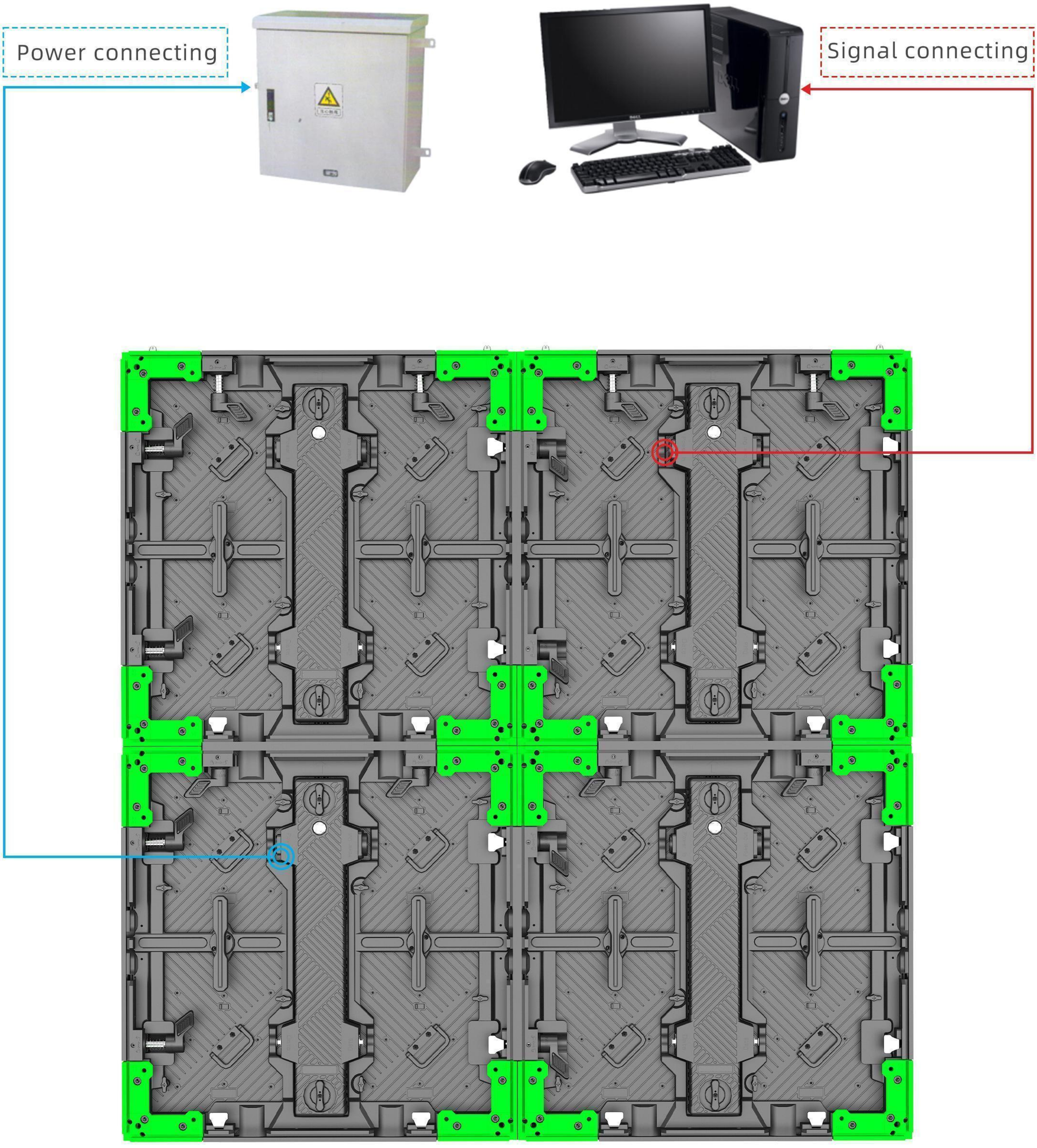
4. After install all panels, check all the status of all panels, fly bars, truss and the load capacity of ceiling.



4.4 LED Display electrical connection



4. Installation



4.Installation

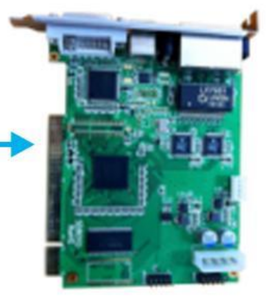
4.5 System Schematic

DV Camera

Cinecamera

TV

DVD



Sending Card
(inside the computer host)

With standard Cat 5e cables connecting

Receiving Card
(inside the LED display)

Receiving Card
(inside the LED display)

LED Display 1

LED Display 2

5.Accessories

5.1 Accessories

Power Cable

(Seetronic or Neutrik brand)

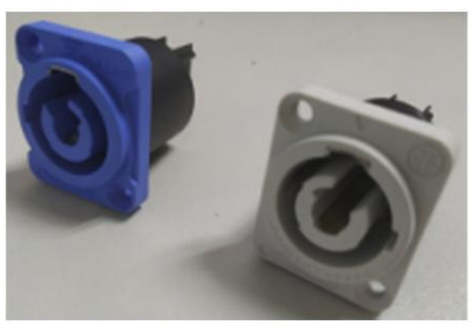
Signal cable

Power supply

(For more information on installation and usage guidelines, please refer to the manual of the power supply.)

Avaition plug

(Seetronic or Neutrik brand)

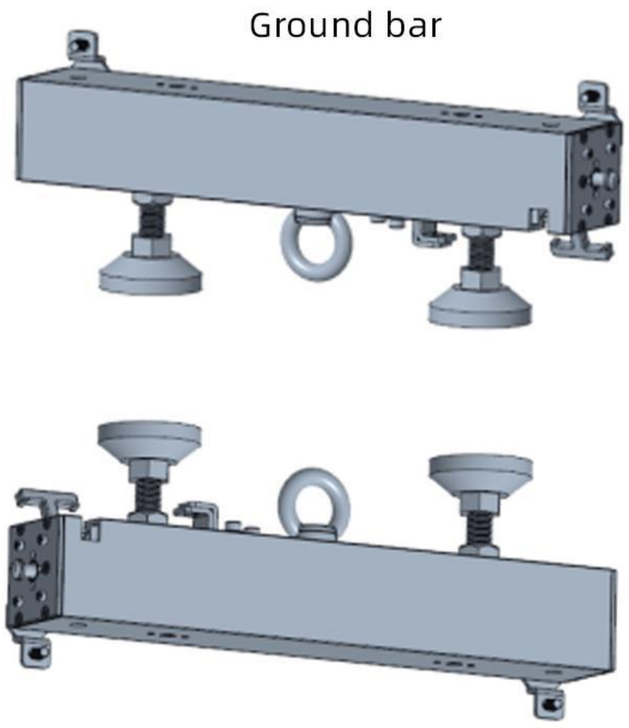


Receiving card

Hanging lock

Flight case

(Product packaging using flight cases can be customized according to actual requirements. Please refer to the actual shipment for specifics.)



Fly bar & ground bar 2 in 1

6.Maintenance

6.1 Daily maintenance precautions

1. Avoid being hurt by hard objects.

2. It is strictly forbidden to enter water, iron powder and other metal objects that are easy to conduct electricity in the screen, which may cause a short circuit. If water gets in for various reasons, please disconnect the power immediately and ask maintenance personnel to use it until the display is dry.

3. Moisture-proof and temperature requirements: the LED display should be less than 92% of the relative humidity at the highest working humidity.

Clean the display

Warning: Isopropyl Alcohol (200-661-7)

Dangerous goods, irritating to eyes and skin. Always use in a well-ventilated area. Steam may cause drowsiness and dizziness. Avoid contact with skin and eyes. In case of accidental contact with eyes, rinse immediately with plenty of water and seek medical attention.

Warning: Isopropyl Alcohol (200-661-7)

Dangerous goods, flammable. Always use in a well-ventilated area away from sources of ignition. No smoking when working with isopropyl alcohol. Store only in well-sealed original containers in a cool, well-ventilated, fire-resistant storage space.

NOTE: The LED components used in the fixed display are susceptible to ESC (Electrostatic Discharge) damage. To avoid damaging the LEDs, the necessary precautions should be taken.

Necessary tools

1. Air compressor.
2. Isopropyl alcohol.
3. Antistatic damp cloth.
4. Vacuum cleaners.
5. A mild detergent.

Clean the outside of the display mounting plate

1. Turn off the display
2. Blow off the dust on the display side (LED indicator) with compressed air. Keep a safety distance of 10 cm between the nozzle of the compressor and the LED indicator.

6.Maintenance

6.1 Daily maintenance precautions

3. Use a damp cloth to clean the side of the display (LED indicator). Clean the LEDs with isopropyl alcohol as solvent.
4. Use a vacuum cleaner to clean the dust from the ventilation grids of the module and control box.

Tip: Do not use a hard bristle brush to clean the LED light to avoid scratching, use a soft brush nozzle to avoid scratching.
Note: Due to ESD, do not use a vacuum cleaner to clean the display side (LED indicator).

5. Clean the housing of the rental frame and control box with a damp cloth. You can remove stubborn stains with a slightly damp cloth and a mild detergent.
6. Clean all display cabinets of the LED display every time to avoid differences in brightness between cleaned and uncleaned displays.
7. It is recommended to use a vacuum cleaner to regularly clean the ventilation grids, modules and control boxes of dust. To do this, use a vacuum cleaner with a soft brush nozzle.

6.Maintain

Attachment: List of common maintenance tools

Electric batch
(Used to disassemble specification snails)

Electric screw
(use with electric batch)

Screwdriver
(Used to install and disassemble the screw nuts)

Soldering iron
(Used for welding electronic components)

Multimeter
(Used to detect circuits)

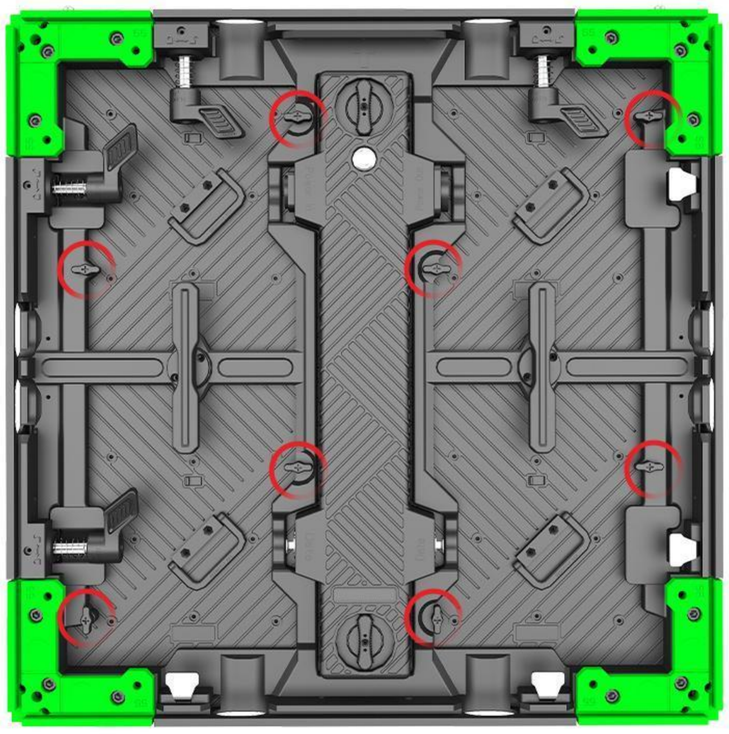
Tweezer
(Grab electronic components)

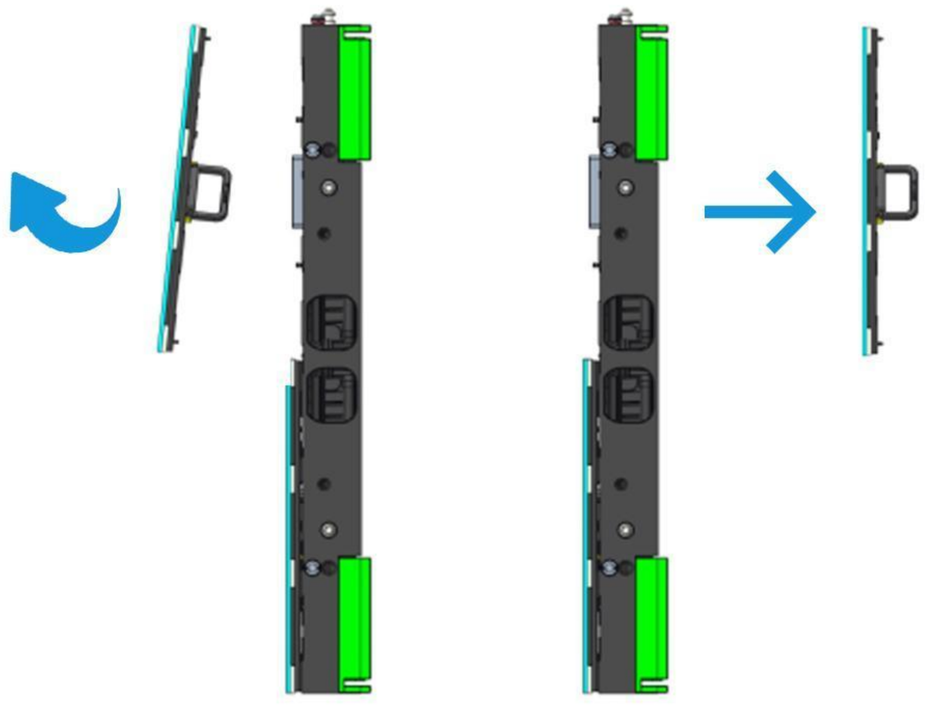
Note: In order to prevent any mechanical stress on the four corners of the module, always ensure that the lamp face of the module is parallel to the rest of the lamp face.

Post-maintenance disassembly of the module

1.Opening the back cover
2.Remove the module screws marked in red from either the display side or the back side.
3.Then take out the module. When removing the module from the large screen that has been assembled, note: Due to the locating pins at the top and bottom, the module should be pushed out from the middle of the panel and then pulled out along the display side.

The red circles indicate where the module screws should be fixed. There are a total of 8 tool-free hand screws.

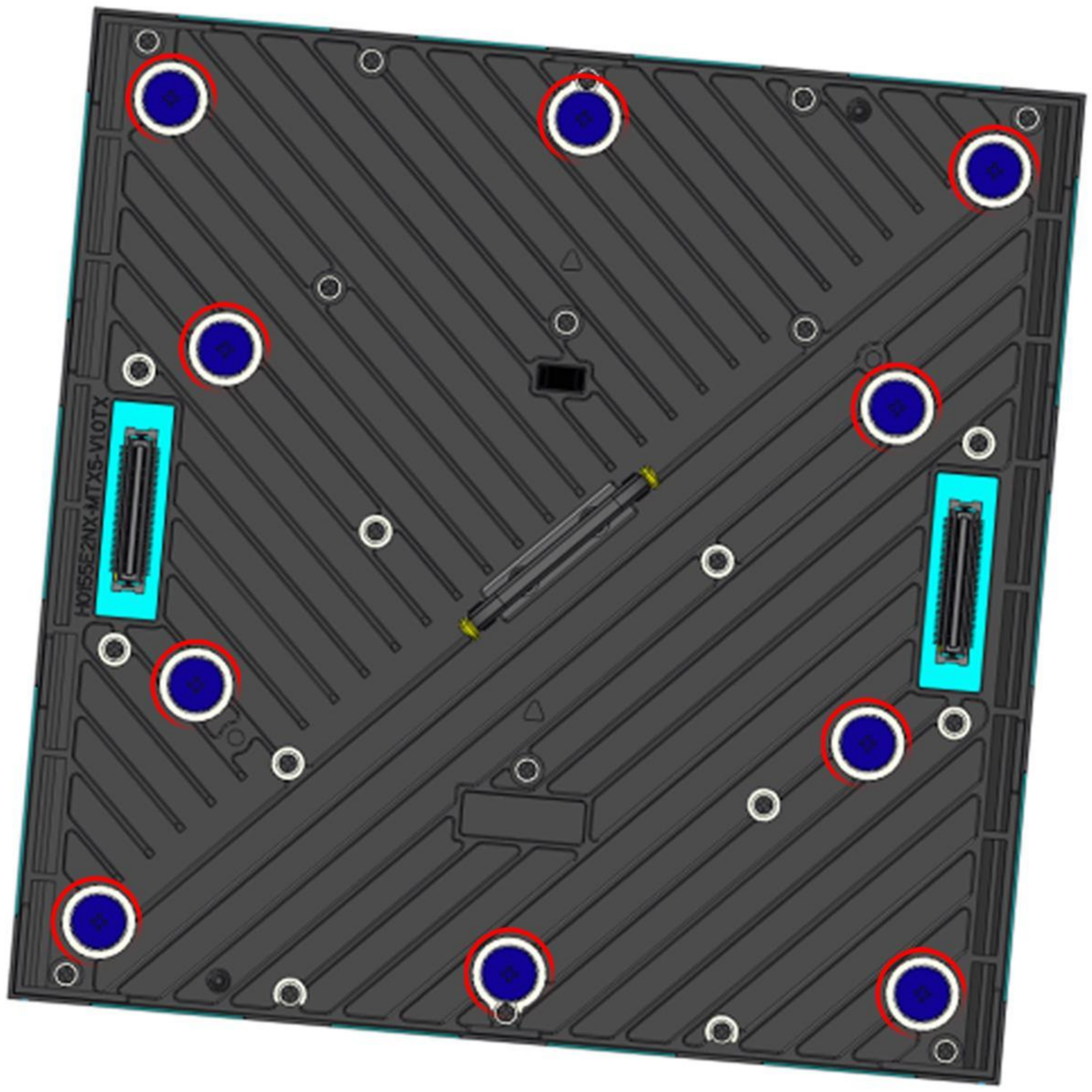




6.Maintain

PCB Board Installation

1.Place the PCB board on the workbench, then sequentially place the four rear bodies in order, and connect the copper pillars on the PCB board to the rear bodies with screws (as shown in the diagram below).



Common fault handling methods Problem determination method

Judgment problems must be dealt with first and then second, with obvious and serious problems dealt with first, and minor problems later. Short circuits should be the highest priority.

1. Resistance detection method:

adjust the multimeter to the resistance gear, detect the resistance value of a certain point of a normal circuit board, and then test the same point of another same circuit board to test whether the resistance value is different from the normal resistance value, if different The scope of the problem is then determined.

2. Voltage detection method:

adjust the multimeter to the voltage level, detect the voltage of a certain point of the circuit suspected of having a problem, and compare whether it is similar to the normal value, otherwise the scope of the problem is determined.

PCB Board Installation

3. Short-circuit detection method:

adjust the multimeter to the short-circuit detection gear (some are diode voltage drop gears or resistance gears, which generally have an alarm function), and detect whether there is a short-circuit phenomenon. other devices. The method must be operated with the circuit de-energized to avoid damage to the meter.

4. Voltage drop detection method:

adjust the multimeter to the diode voltage drop detection gear, because all ICs are composed of many basic single components, but they are miniaturized, so when there is current passing through one of its pins, There will be a voltage drop across the pin. Generally, the voltage drop on the same pin of the same type of IC is similar. According to the value of the voltage drop on the pin, it must be operated with the circuit powered off. This method has certain limitations. For example, if the detected device is high resistance, it cannot be detected.

6.Maintain

6.2 Common faults and troubleshooting methods of LED display

1、The whole screen is not bright (black screen)

A: Check the power supply of the screen body, use a test pen or a multimeter to detect whether there is electricity at the end of the switch connected to the electrical appliance, there may be a problem with the switch, or the wire is broken.

B: For the display screen synchronized with the computer, first check whether the computer enters the sleep state or enters the screen saver state; ” option, select the “Never” option, so that the computer will not sleep, and the display screen can work normally. If it does not enter the sleep mode, you can open the case to check whether the control card and the communication cable are firmly connected, and check whether the communication cable is disconnected. above problem.

C: Check whether the communication line is connected, whether there is a wrong connection, synchronize the screen, please connect and check according to the connection diagram.

D: Check whether the green light of the sending card is flashing.

E: Whether the settings of the graphics card are normal and whether the FPD is turned on.

F: Is the signal light on the receiving card flashing normally?

2、The entire unit board does not light up (black screen)

A: The horizontal direction of several consecutive boards does not light up, check whether the cable connection between the normal unit board and the abnormal unit board is connected. The vertical direction of several consecutive boards does not light up, check whether the power supply of this column is normal.

B: Check if the position of just one receiving card is off, check whether the voltage of the receiving card is 5V, and whether the network cable input to the receiving card is normal.

C: If a unit board does not light up, check whether the input cable to the unit board is loose.

3、Display file is incomplete or in wrong location

A: First, check whether the parameters of "display position" and "screen size" in the software are consistent with those given by the installation project. If you don't remember, you can count the length and width of pixels on the screen. After the "body size" is determined, you can go to the screen to see the displayed area and adjust it until the position matches.

B: If the display is not comprehensive, check whether the file size is consistent with the "screen size" of the screen.

C: Open the case to check whether there is a conductor falling on the control card.

6.2 Common faults and troubleshooting methods of LED display

4、The communication display screen can not communicate

A: Check whether the parameters in the software are consistent with those of the installation project.

B: Check whether the serial port is half-connected and whether the communication line is broken.

5、Display jittering with horizontal strips

Check whether the common ground wire connected to the computer is loose, or whether the communication cable is loose. If the operator cannot judge the cause of the problem, or is not very familiar with the computer, do not disassemble the panel easily or the problem of the display is severe, please contact our company promptly, and then conduct a diagnosis with the consent and instructions of the relevant personnel of our company.

6、No sound from the screen

This is caused by a conflict between the sound controller built into the graphics card and the sound controller in the computer, so just turn off the sound controller in the computer. The operation is as follows: Open My Computer "Properties", find "Device Manager" in "Hardware", select the sound controller, and then disable "Realtek high definition Audio".

7、Can’t play DVDs or video files

A: The computer does not have a video file player installed.

B: The player itself does not support this file format.

C: WINDVD or POWER player can be installed.

8、Display is blurry or flickering

A: Is the DVI cable plugged in properly?

B: Is there a short circuit or disconnection in the network cable?

C: Is the screen refresh rate of the monitor set at 60 HZ?

D: Is it because the transmission distance of the network cable is too long to cause flickering.

9、Abnormal output

A: Check whether the IC circuit from the output interface to the signal output is connected or short-circuited.

B: Check whether the clock latch signal of the output port is normal.

6.2 Common faults and troubleshooting methods of LED display

C: Check whether the cascaded output data port between the last driver IC is connected with the data port of the output interface or is short-circuited.

D: Check whether the output signals are short-circuited with each other.

E: Check whether the output cable is good.

10、Display chaos, abnormal output

A: Check whether the clock CLK latches the STB signal is short-circuited.

B: Check whether there is input and output for the clock CLK of the 245.

C: Check whether the clock signal is short-circuited to other lines.

!!!Note: Mainly detect clock and latch signals.

11、The display is messed up, but the signal output to the next board is OK

A: Check whether the STB latch output terminal corresponding to 245 is connected to the latch terminal of the driver IC or the signal is short-circuited to other lines.

B: Detect whether there is an open circuit or a virtual welding or a short circuit between the A, B, C, D output terminals corresponding to 245 and 138.

C: Detect whether the signals of A, B, C, and D are short-circuited or whether a signal is short-circuited to ground.

!!!Note: Mainly detect ABCD line signal.

12、Display lack of color

A: Check whether there is input or output at the data terminal of the color of 245.

B: Detect whether the data signal of this color is shorted to other lines.

C: Check whether the cascaded data ports between the driver ICs of this color are open or short-circuited or soldered.

Note: It is easier to find the problem by using the voltage detection method, check whether the voltage of the data port is different from the normal one, and determine the fault area.

7.After-sales service description

Pre-sales service （technical consultation）

KMT provides pre-sales consulting services to customers. The main purpose of pre-sales service is to assist customers in engineering planning and system requirement analysis, ensuring that our products can meet user needs to the greatest extent possible, while also maximizing the comprehensive economic benefits of customer investments.

After-sales service

KMT has established a complete project file for each project, has a skilled engineering team, and is equipped with professional maintenance personnel, who can provide customers with after-sales service nearby and respond to customer needs. We provide free warranty service and lifetime maintenance service for a certain period of time for the products that have been delivered. During the free warranty period, all faults caused by the quality of components or the production and installation process will receive unconditional free maintenance, but the faults caused by violation of regulations or some irresistible external factors （such as power supply parameters exceeding the standard, lightning strikes, etc.)) It is not included in the exemption, and the service fee is charged as appropriate.

1、Warranty period:

The product is guaranteed for one year from the date of shipment from the factory. During the warranty period, if the product fails, it will be repaired free of charge if it is determined by the company's technicians to be in normal use (use according to the requirements of the product manual and its precautions).

2、Warranty scope:

LED modules, switching power supplies, control systems and other major accessories (products not directly purchased from our company are not covered by this warranty).

3、Warranty method:

Send in for repair, by express mail or otherwise.

7.After-sales service description

4、Response speed:

1. Send for repair: The repair service will repair the product to be repaired within 24 hours after receiving it and send it back to the repair party or hand it over to a third-party qualified or authorized third-party personnel trained by KMT Technology for repair.

2. Telephone or network: get in touch with the user within 2 hours after learning and give a solution within 8 hours.

3. On-site maintenance (only applicable to customers in China); according to the maintenance requirements, the response will not exceed 48 hours in Guangdong Province, and within 72 hours outside Guangdong Province. If there are special circumstances, the two parties will negotiate and resolve on the principle of friendly negotiation.

5、Exchange and return of products:

Our company supplies products strictly according to the contract list. If the quantity or specification does not match the actual, the buyer can raise an objection within 3 days after receiving the goods, and the equivalent value will be exchanged or supplemented after confirmation by our company.

6、Accidental damage repair:

If it is damaged due to improper operation or unintentional damage during use, our company can provide corresponding accessories, which are only charged according to the cost of accessories without any additional charges.

7、 upgrade service:

Our products will be upgraded from time to time without prior notice; our company will try our best to provide assistance when users need to upgrade their products.

8、After-sales service after the warranty period:

Our company only charges maintenance costs (labor, accessories, travel).

7.After-sales service description

10、One of the following situations is not eligible for free repair or replacement:

A. It is impossible to provide valid proof that it is a product of KMT.

B. The serial number on the product is damaged or has traces of alteration.

C. Failure and damage caused by improper installation, improper use or self-disassembly.

D. After acceptance, failure and damage caused by transportation, falling, etc.

E. Failure and damage caused by fire, flood, earthquake and other force majeure or public nuisance, humidity, corrosive gas, etc.

F. Failure and damage caused by abnormal voltage and current.

G. Failure and damage caused by use beyond the specified range.

H. Gift products.

I. Failure and damage not caused by the responsibility of the company.

J. Modified or repaired by the user or dismantled, modified or repaired by a third party not permitted by Gloshine.

K. Caused by improper storage or use

L. Exceed the validity period of the free warranty.

M. Please keep the warranty card, it will not be replaced if it is lost. The warranty card is only for domestic use in China. This warranty card stipulates that all items within the scope of the warranty card will be guaranteed.

N. The company reserves the right of final revision and interpretation of the above terms.